Xtouch

Flameproof Pendant Stations

www.coel-is.com

2018 r.1

INDEX

PENDANT STATIONS

The new X Touch series push-button stations for auxiliary controls are the result of a blend of Coel's long experience in manufacturing electromechanical components.

In designing the product particular attention was paid both to easy handling features and to the technical aspects, in order to ensure usage also in heavy-duty circumstances.

All the materials, which come into direct contact with the environment, are resistant to atmospheric agents, oils, temperature changes and are shockproof.

X Touch is built so to ensure complete protection against dusts and water as per IP65 protection

The optimized internal space allows to make all connections easily and quickly.

Bridge connections have been projected in order to reduce cabling time and are available upon request.

X Touch push-button stations are offered in 5 different sizes, ranging from 4 to 16 buttons devices and various controls and switches can be mounted on each type.

They are made out of an enclosure in aluminum.

The switches have self-cleaning sliding contacts in silver alloy.
Inside the enclosures it is possible to insert switches, thermal protectors and a resistances as anti condensation heater.

The pendant stations are intended to be used in industrial areas and in particular for Hazardous Locations ATEX and IECEx zones are 1, 2, 21, 22; for cETLus Class I, Class II, Class III, are Division 1.

MAIN FEATURES

- Enclosure made in aluminum as standard
- Ambient temperature range: -20°C to +60°C for ATEX-IECEx, -20°C to +40°C for cETLus
- Double step buttons for each type
- Painted with epoxy paint as standard
- Supplied with Selector Switch (Key type) Disabled, Enabled and Start

General Safety Specifications :

• Maximum power supply	250Vdc or 240Vac
• Maximum current	1.1 A at 250 Vdc or 3A at 240Vac
• Rated frequency	50/60 Hz

OPTIONS

- Enclosure in steel C40 or AISI 316 (only for TA type)
- Anti-condensation heater

Conformity to ATEX Standards – 2014/34/UE

EN 60079-0 - Explosive atmospheres. Equipment. General requirements
EN 60079-1 - Explosive atmospheres. Equipment protection by flameproof enclosures "d"
EN 60079-31 - Explosive atmospheres. Equipment dust ignition protection by enclosure "t"

Conformity to IECEx Standards

IEC 60079-0 - Explosive atmospheres. Equipment. General requirements
IEC 60079-1 - Explosive atmospheres. Equipment protection by flameproof enclosures "d"
IEC 60079-31 - Explosive atmospheres. Equipment dust ignition protection by enclosure "t"

Type of Protection :

ATEX	II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T85°C Db Tamb : -20°C to +60°C
IECEx	Ex db IIC T6 Gb Ex tb IIIC T85°C Db Tamb : -20°C to +60°C

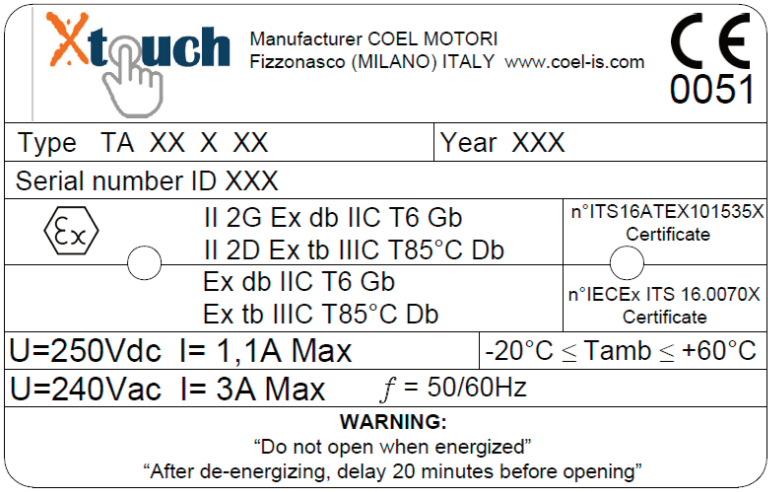
Conformity to cETLus Standards

UL 1203 - Ed.5
CSA C22.2.30 - M1986
CSA C22.2.25

Type of Protection :

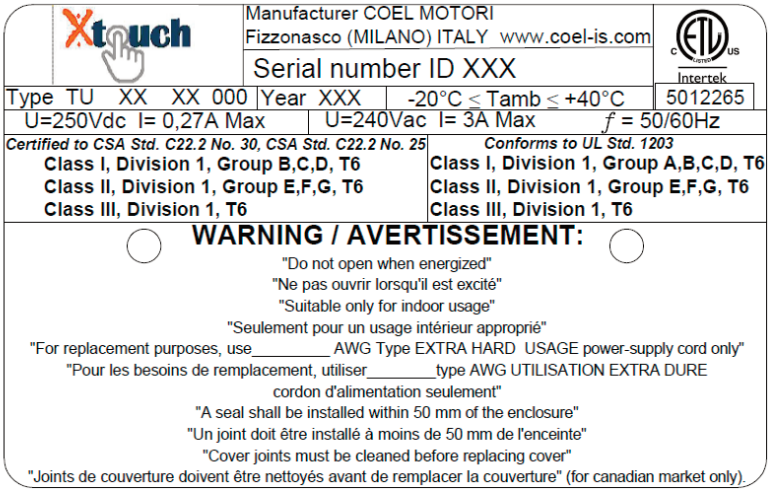
cETLus	Marking ETLus: Class I, Division 1, Groups A,B,C, D, T6 Tamb: -20°C;+40°C. Class II, Division 1, Group E, F and G, T6 Tamb: -20°C;+40°C. Class III, Division 1, T6 Tamb: -20°C;+40°C. Marking cETL: Class I, Division 1, Groups B,C, D, T6 Tamb: -20°C;+40°C. Class II, Division 1, Group E, F and G, T6 Tamb: -20°C;+40°C. Class III, Division 1, T6 Tamb: -20°C;+40°C

MARKING PLATE



Manufacturer COEL MOTORI Fizzonasco (MILANO) ITALY www.coel-is.com	CE 0051
Type TA XX X XX	Year XXX
Serial number ID XXX	
II 2G Ex db IIC T6 Gb II 2D Ex tb IIIC T85°C Db	n°ITS16ATEX101535X Certificate
Ex db IIC T6 Gb Ex tb IIIC T85°C Db	n°IECEx ITS 16.0070X Certificate
U=250Vdc I= 1,1A Max	-20°C ≤ Tamb ≤ +60°C
U=240Vac I= 3A Max	f = 50/60Hz

WARNING:
"Do not open when energized"
"After de-energizing, delay 20 minutes before opening"



Manufacturer COEL MOTORI Fizzonasco (MILANO) ITALY www.coel-is.com			Intertek 5012265
Serial number ID XXX			
Type TU XX XX 000	Year XXX	-20°C ≤ Tamb ≤ +40°C	
U=250Vdc I= 0,27A Max	U=240Vac I= 3A Max	f = 50/60Hz	
Certified to CSA Std. C22.2 No. 30, CSA Std. C22.2 No. 25 **Class I, Division 1, Group B,C,D, T6** **Class II, Division 1, Group E,F,G, T6** **Class III, Division 1, T6**		*Conforms to UL Std. 1203* **Class I, Division 1, Group A,B,C,D, T6** **Class II, Division 1, Group E,F,G, T6** **Class III, Division 1, T6**	

WARNING / AVERTISSEMENT:
"Do not open when energized"
"Ne pas ouvrir lorsqu'il est excité"
"Suitable only for indoor usage"
"Seulement pour un usage intérieur approprié"
"For replacement purposes, use_____ AWG Type EXTRA HARD USAGE power-supply cord only"
"Pour les besoins de remplacement, utiliser_____type AWG UTILISATION EXTRA DURE cordon d'alimentation seulement"
"A seal shall be installed within 50 mm of the enclosure"
"Un joint doit être installé à moins de 50 mm de l'enceinte"
"Cover joints must be cleaned before replacing cover"
"Joints de couverture doivent être nettoyés avant de remplacer la couverture" (for canadian market only).

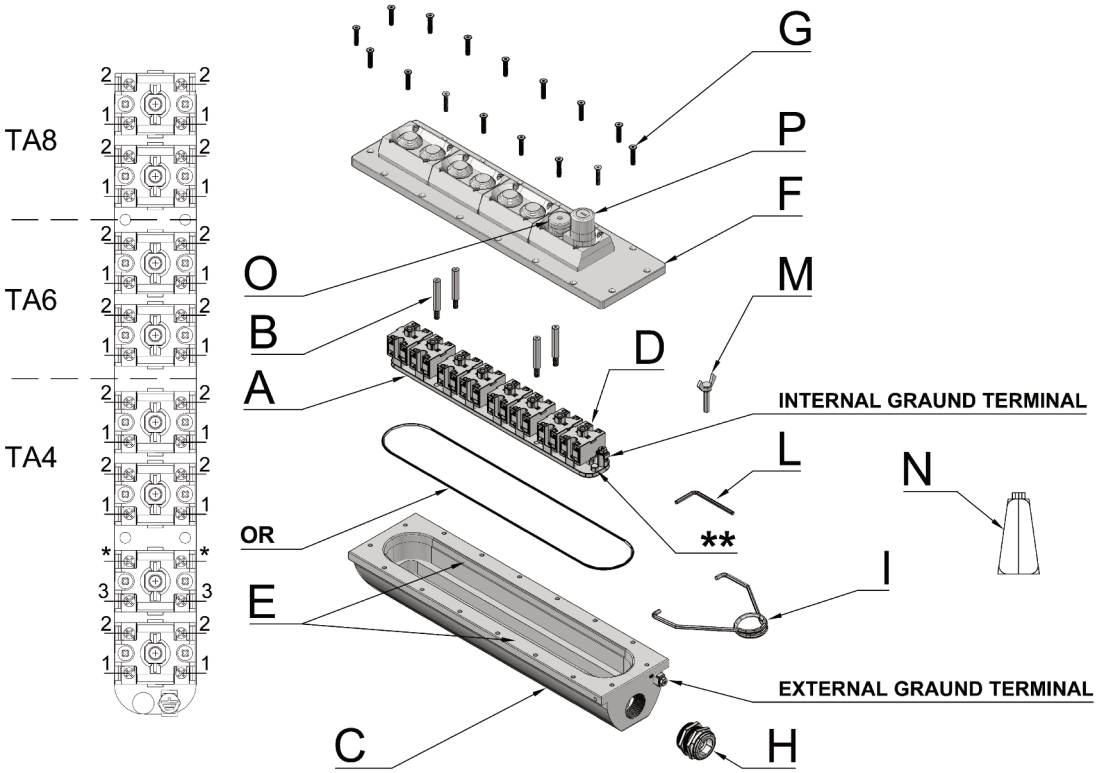
DESIGNATION

X Touch TA (ATEX - IECEx) XX X XX

- XX : Number of contact : 4, 6, 8, 12, 16
- X : If heater is installed : H
- XX : Identification of the threaded entry:
  - M25X1,5 : M2
  - M32X1,5 : M3

X Touch TU (cETLus) XX XX 000

- XX : Number of contact : 4, 6, 8, 12, 16
- 000 : The last 3 numbers indicates the type of buttons installed
- XX : Identification of the threaded entry:
  - NPT 3/4" : N1
  - NPT 1" : N2
  - M25X1,5 : M1
  - M32X1,5 : M2



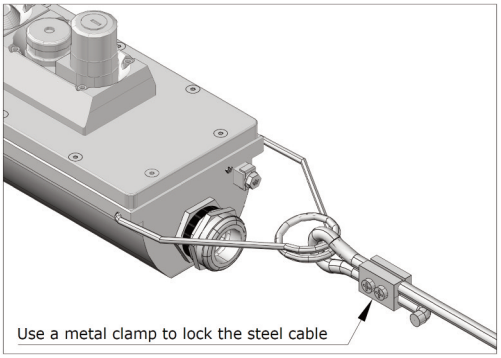
INSTALLATION

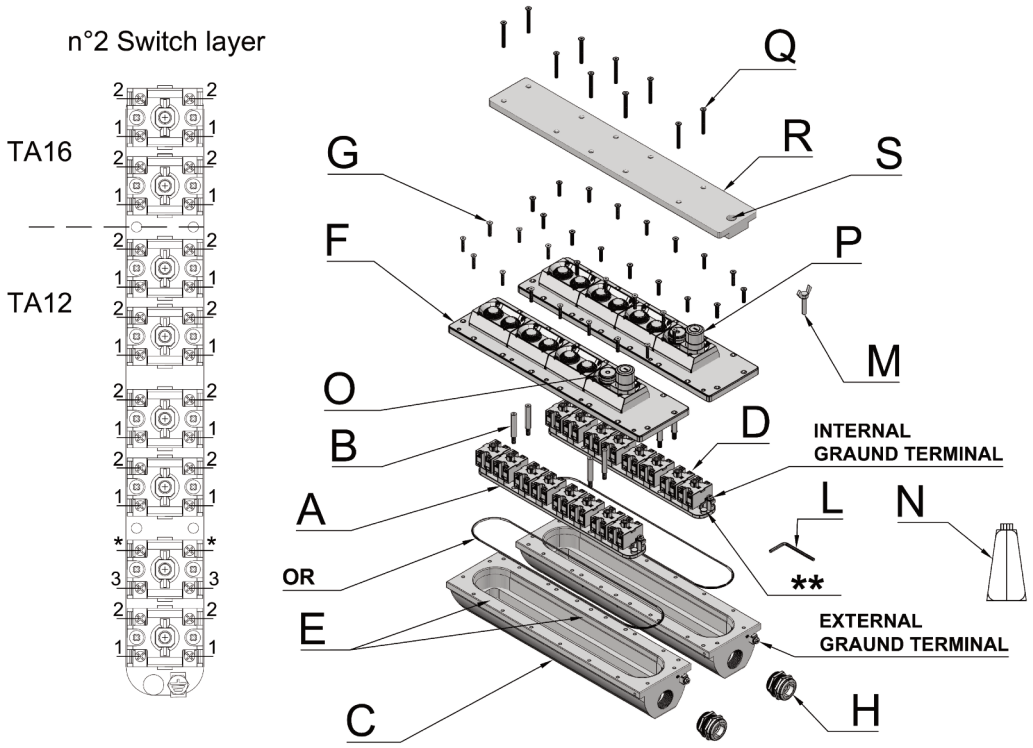
1) Open the covers **F** using the screws **M**
2) Unscrew the **B** pins using the key **L** supplied with the pendant station
3) Extract the switches layer **A**
4) Insert the cable through the conduit or cable gland **H** (not supplied) and through the hole **C**
5) Connect the wires to the switches **D**. Locking force of screws is 1Nm.
6) Lock the switches layer **A** to the base using the pins **B**. Locking force is 4,5 Nm.
7) Put the lithium grease **N** on the lamination junction **E** of the terminal box cover
8) Close the terminal box **F**
9) Fix the screws **G** with a torque value of 6,3Nm
10) Assemble the holding hook **I** on the base
11) Connect the external ground terminal
12) Fix the steel holding cable to the holding hook

DESIGNATION

TA4= 2 bottoms double step + 1 key (P) + 1 emergency (O)
TA6= 4 bottoms double step + 1 key (P) + 1 emergency (O)
TA8= 6 bottoms double step + 1 key (P) + 1 emergency (O)
-Contacts 1 and 2 are NO
-Contact 1 is activated with the first step of the bottom
-Contact 2 is activated with the second step of the bottom
-Contact 3 is NC
*- Key **P** is a double step key for power on and start on operation*
*- Emergency bottom **O** to be manually reactivated in case of use*
**Terminals without switch to be used to connect the anti condensation heater (if equipped) - Locking force for screws 1 Nm*
***Thermal protector PTO*
To prevent over heating of anti condensation heater (if equipped)

The holding cable must have a length of 5cm shorter than the power supply cable in order to prevent the cable stress.
The weight of the pendant station must be hold by the steel holding cable only.





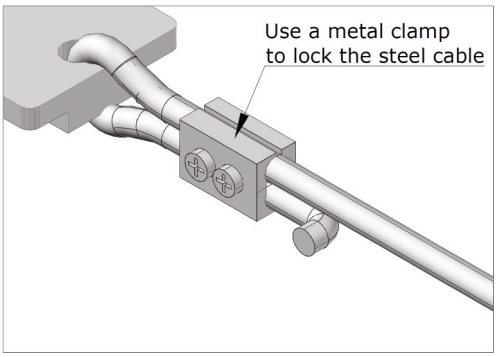
INSTALLATION

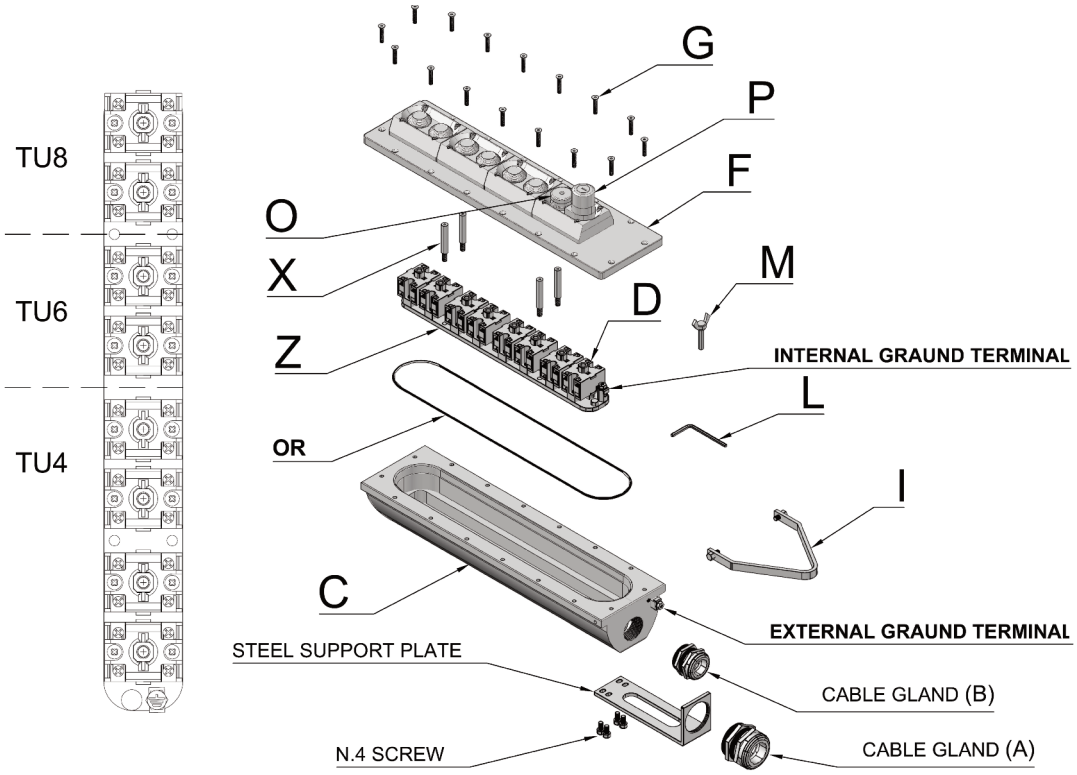
1) Unscrew the screws **Q** and remove the junction plate **F**
2) Open the covers **F** using the screws **M**
3) Unscrew the **B** pins using the key **L** supplied with the pendant station
4) Extract the switches layer **A**
5) Insert the cable through the conduit or cable glands **H** (not supplied) and through the holes **C**
6) Connect the wires to the switches **D**. Locking force of screws is 1Nm.
7) Lock the switches layer **A** to the base using the pins **B**. locking force is 4,5 Nm.
8) Put the lithium grease **N** on the lamination junctions **E** of the terminal box cover
9) Close the terminal boxes **F** and fix the screws **G** with a torque value of 6,3Nm and apply the plate **R**
10) Fix **Q** with a torque value of 6,3Nm
11) Connect the external ground terminal
12) Fix the steel holding cable to the holding **S** hole on **R** plate

DESIGNATION

TA12= 8 bottoms double step + 2 keys (P) + 2 emergency (O)
TA16= 12 bottoms double step + 2 keys (P) + 2 emergency (O)
-Contacts 1 and 2 are NO
-Contact 1 is activated with the first step of the bottom
-Contact 2 is activated with the second step of the bottom
-Contact 3 is NC
*- Key **P** is a double step key for power on and start on operation*
*- Emergency bottom **O** to be manually reactivated in case of use*
**Terminals without switch to be used to connect the anti condensation heater (if equipped) – Locking force for screws 1 Nm*
***Thermal protector PTO*
To prevent over heating of anti condensation heater (if equipped)

The holding cable must have a length of 5cm shorter than the power supply cable in order to prevent the cable stress.
The weight of the pendant station must be hold by the steel holding cable only.





INSTALLATION

1) Open the covers **F** using the screws **M**
2) Unscrew the **X** pins using the key **L** supplied with the pendant station
3) Extract the switches layer **Z**
4) Following the instructions at the point " **ASSEMBLY INSTRUCTION STELL SUPPORT PLATE**"
5) Connect the wires to the switches **D**. Locking force of screws is 1Nm.
6) Lock the switches layer **Z** to the base using the pins **X**. Locking force is 4,5 Nm.
7) Close the terminal box **F**
8) Fix the screws **G** with a torque value of 6,3Nm
9) Assemble the holding hook **I** on the base **C**
10) Connect the external ground terminal
11) Fix the steel holding cable to the holding hook

Notes: for wiring of cETLus versions follow the NFPA70 art. 500 and subsequent articles. For Canada version CSA 22.1 Sec.18. Cord-connected equipment employing a packing gland requiring dismantling during cord replacement shall be marked or provided with instructions regarding its installation and replacement."

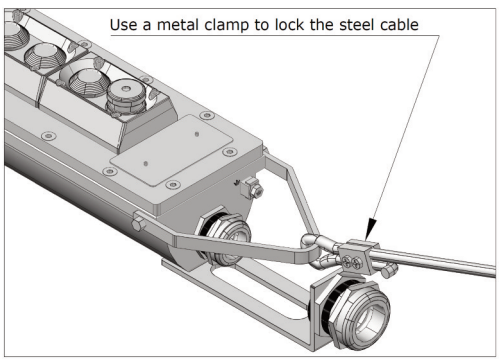
DESIGNATION

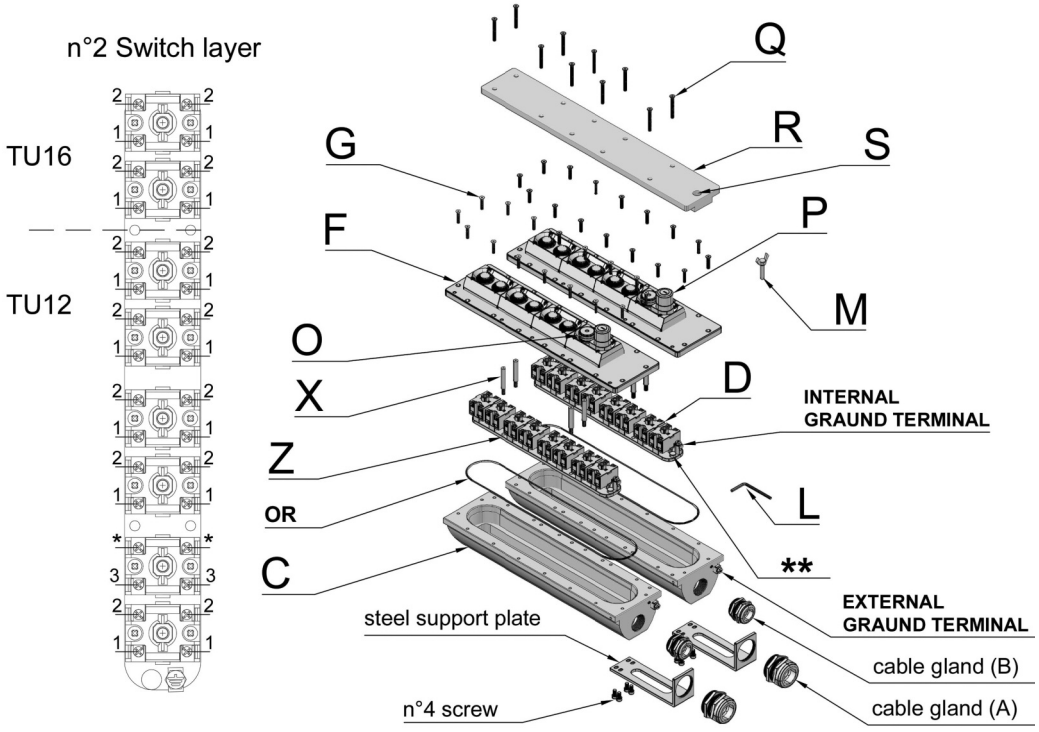
TU4= 2 bottoms double step + 1 key (P) + 1 emergency (O)
TU6= 4 bottoms double step + 1 key (P) + 1 emergency (O)
TU8= 6 bottoms double step + 1 key (P) + 1 emergency (O)
-Contacts 1 and 2 are NO
-Contact 1 is activated with the first step of the bottom
-Contact 2 is activated with the second step of the bottom
-Contact 3 is NC
*- Key **P** is a double step key for power on and start on operation*
*- Emergency bottom **O** to be manually reactivated in case of use*
**Terminals without switch to be used to connect the anti condensation heater (if equipped) - Locking force for screws 1 Nm*
***Thermal protector PTO*
To prevent over heating of anti condensation heater (if equipped)

The holding cable must have a length of 5cm shorter than the power supply cable in order to prevent the cable stress.
The weight of the pendant station must be hold by the steel holding cable only.

ASSEMBLY INSTRUCTION STEEL SUPPORT PLATE:

a) Insert the cable gland "B"(not supplied) in the threaded hole placed on the upper part of the metal box and tight firmly
b) Insert the cable gland "A" in the threaded hole placed in the upper part of the steel support plate
c) Fix the steel support plate on the metal box with the four screws M5 (threaded fixing 6,3 Nm)
d) Insert the electric cable (not supplied) through the two cable glands A&B
e) In order to maintain the electric cable in its correct position, check and tight firmly the two cable glands A&B





INSTALLATION

1) Unscrew the screws **Q** and remove the junction plate **R**
2) Open the covers **F** using the screws **M**
3) Unscrew the **X** pins using the key **L** supplied with the pendant station
4) Extract the switches layer **Z**
5) Following the instructions at the point " **ASSEMBLY INSTRUCTION STELL SUPPORT PLATE**"
6) Connect the wires to the switches **D**. Locking force of screws is 1Nm.
7) Lock the switches layer **Z** to the base using the pins **X**. locking force is 4,5 Nm.
8) Close the terminal boxes **F** and fix the screws **G** with a torque value of 6,3Nm and apply the plate **R**
9) Place the plate **R** and tight the screws **Q** with a torque value of 6,3Nm
10) Connect the external ground terminal
11) Fix the steel holding cable into the holding hole **S** drilled on **R** plate.

Notes: for wiring of cETLus versions follow the NFPA70 art. 500 and subsequent articles. For Canada version CSA 22.1 Sec.18. Cord-connected equipment employing a packing gland requiring dismantling during cord replacement shall be marked or provided with instructions regarding its installation and replacement."

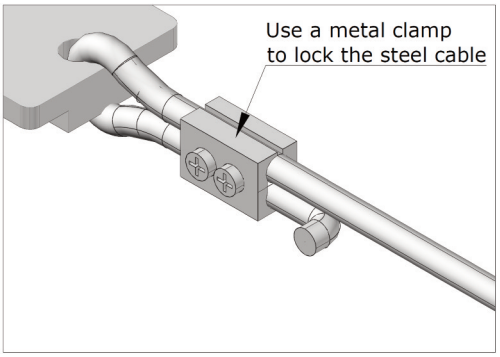
DESIGNATION

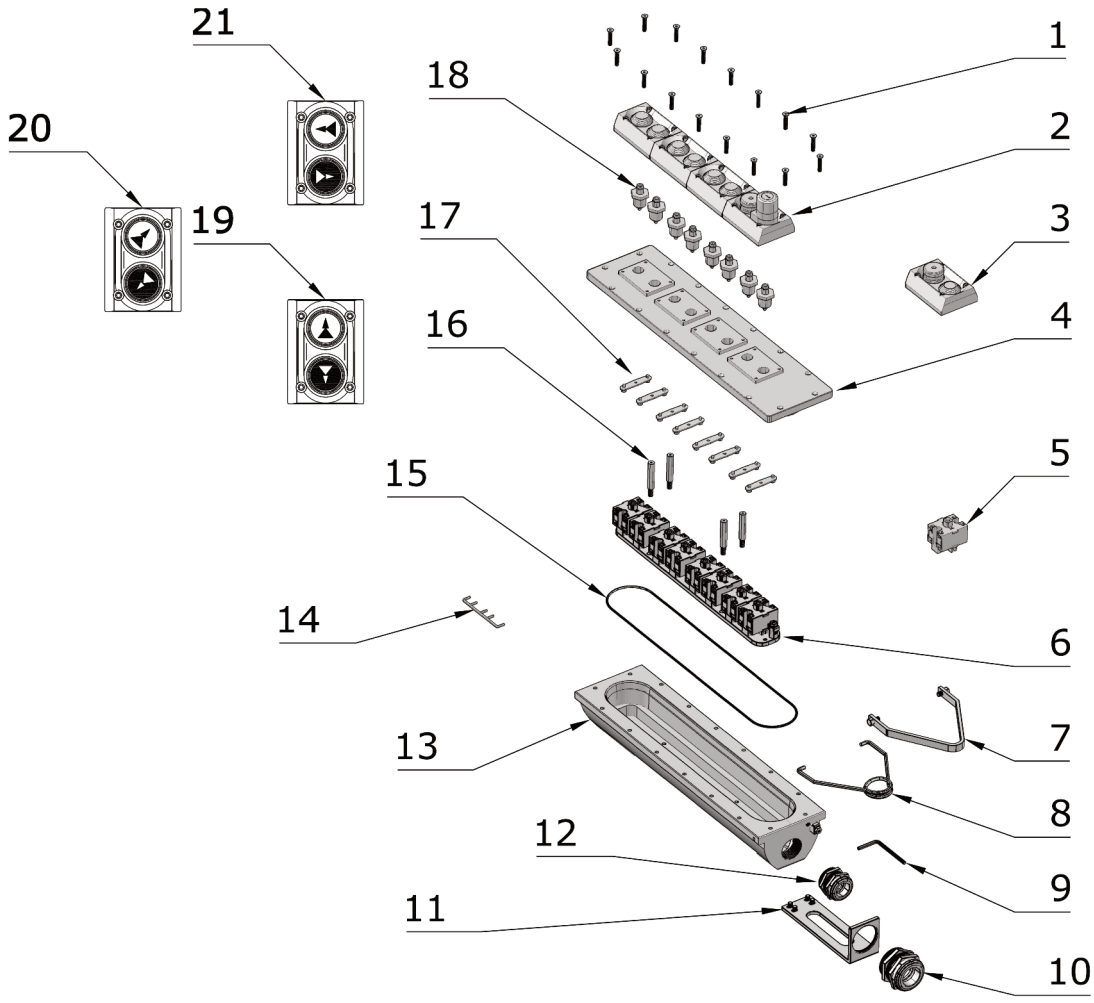
TU12= 8 bottoms double step + 2 keys (P) + 2 emergency (O)
TU16= 12 bottoms double step + 2 keys (P) + 2 emergency (O)
-Contacts 1 and 2 are NO
-Contact 1 is activated with the first step of the bottom
-Contact 2 is activated with the second step of the bottom
-Contact 3 is NC
*- Key **P** is a double step key for power on and start on operation*
*- Emergency bottom **O** to be manually reactivated in case of use*
**Terminals without switch to be used to connect the anti condensation heater (if equipped) – Locking force for screws 1 Nm*
***Thermal protector PTO*
To prevent over heating of anti condensation heater (if equipped)

The holding cable must have a length of 5cm shorter than the power supply cable in order to prevent the cable stress.
The weight of the pendant station must be hold by the steel holding cable only.

ASSEMBLY INSTRUCTION STEEL SUPPORT PLATE:

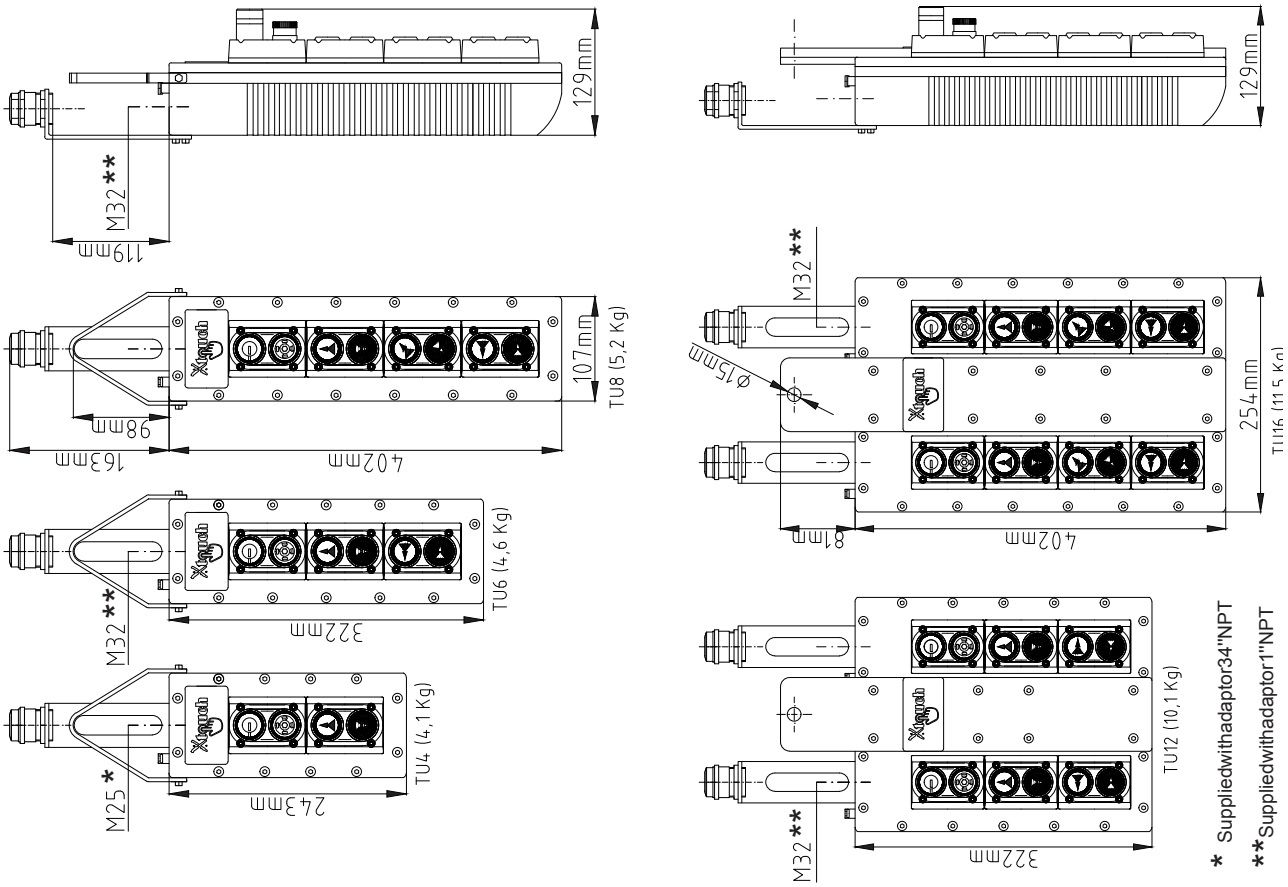
a) Insert the cable gland "B"(not supplied) in the threaded hole placed on the upper part of the metal box and tight firmly
b) Insert the cable gland "A" in the threaded hole placed in the upper part of the steel support plate
c) Fix the steel support plate on the metal box with the four screws M5 (threaded fixing 6,3 Nm)
d) Insert the electric cable (not supplied) through the two cable glands A&B
e) In order to maintain the electric cable in its correct position, check and tight firmly the two cable glands A&B



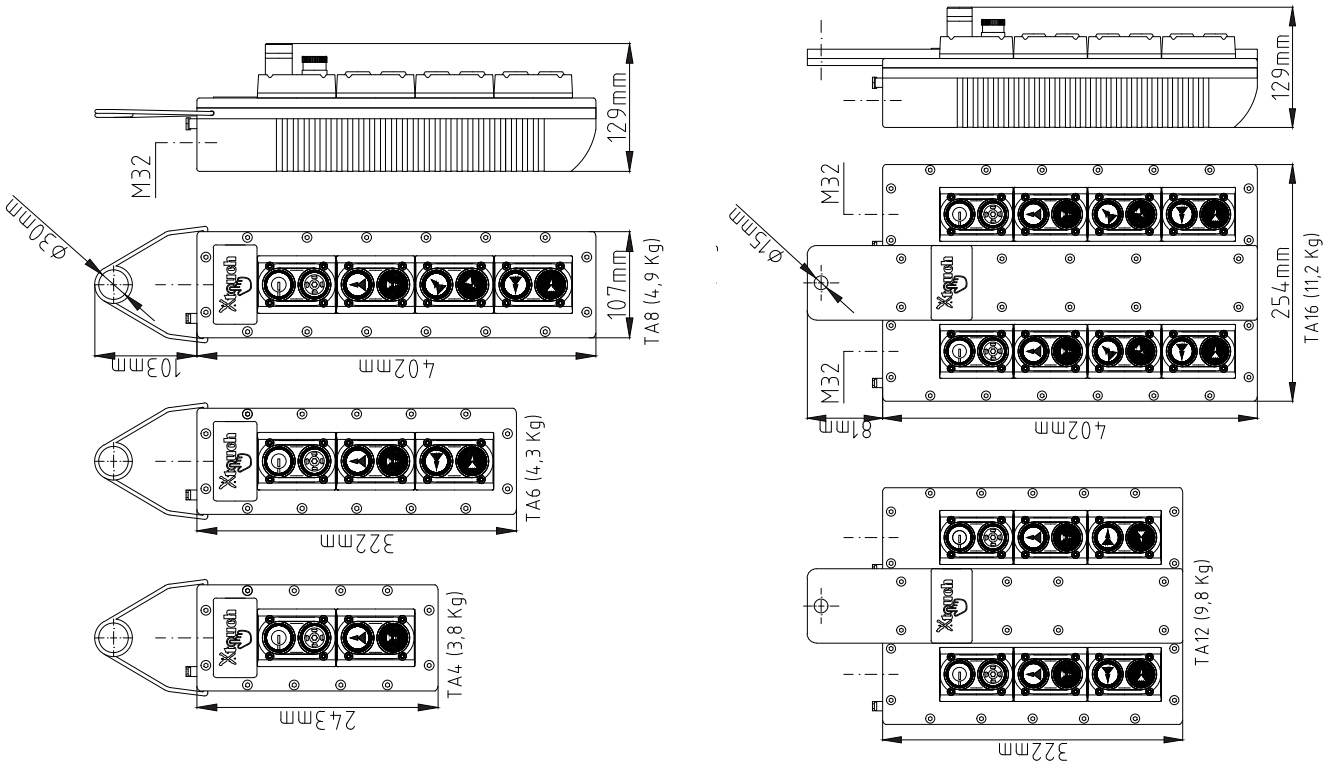


Part Nr.	Description
1	locking screw
2	key switch
3	start and emergency buttons kit
4	aluminum cover
5	NO switch
6	switch layer
7	holding support
8	holding hook
9	hexagon key
10	stress proof cable gland
11	support plate
12	cable gland (not supplied)
13	aluminum base
14	brass connection plate
15	o-ring
16	switch plate locking pins
17	silicon spring
18	pistons
19-20-21	twin buttons kit

TU


129mm
M32**
119mm
107mm
TU8 (5,2 Kg)
98mm
163mm
402mm
322mm
TU6 (4,6 Kg)
M32**
M25*
243mm
TU4 (4,1 Kg)
Ø15mm
254mm
81mm
TU12 (10,1 Kg)
* Suppliedwithadaptor34"NPT
**Suppliedwithadaptor1"NPT

TA

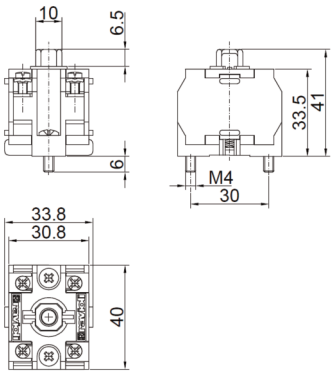

129mm
M32
Ø30mm
107mm
TA8 (4,9 Kg)
103mm
402mm
322mm
TA6 (4,3 Kg)
243mm
TA4 (3,8 Kg)
Ø15mm
254mm
81mm
TA16 (11,2 Kg)
TA12 (9,8 Kg)

Switching Element

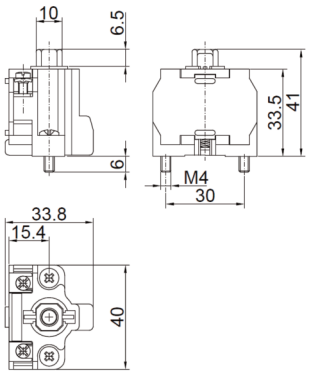
Main Features

Push button elements are inside part of X Touch pendant stations .
Casing is made in self-extinguishing nylon glass.
Double breaking and self-cleaning sliding contact element are in silver alloy
Screws and springs in inox steel

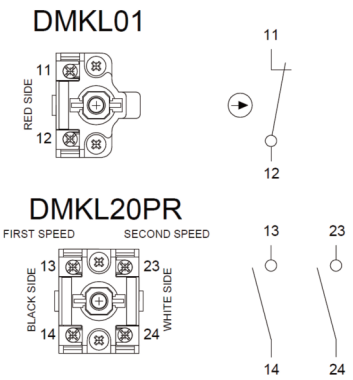
Two steps (NO)



One step (NC)



Diagram



Push buttons with International Symbols buttons with International Symbols

According to FEM 9.941 rules